

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | F FU80HAX |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513200977 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115-127 / 60 | [V / Hz] | |
| 4 Application type | Low-Medium Back Pressure | | |
| 4.1 Evaporating temperature range | -35°C to -5°C | (-31°F to 23°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - Hight starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 8 Compressor cooling | Operating voltage range | | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | Static/Fan | - | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static/Fan | - | 98 to 140 V |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating | 14.2 | [kgf/cm ²] (202 psig) | / °C - °F |
| 9.2 Peak | 15.9 | [kgf/cm ²] (226 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1/4+ | [hp] |
| 2 Displacement | 6.76 | [cm ³] (0.413 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 17.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 11 | [kg] (24.25 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115-127 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 213516094 | |
| 3 Start capacitor | 270-324(150) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM762PFBZZ-53 | |
| 6 Start winding resistance | 4.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.96 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 30.50 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 4.20 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 4.90 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CE - UKCA - UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAELBP32 Static | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 828 | 209 | 243 | 167 | | 4.70 | 4.96 | 1.25 | 1.45 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 45°C (+113°F)) | | | | |
| Evaporating temperature | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 412 | 104 | 121 | 111 | 2.36 | 2.33 | 3.70 | 0.93 | 1.09 |
| -30 (-22) | 590 | 149 | 173 | 131 | 2.43 | 3.34 | 4.48 | 1.13 | 1.31 |
| -25 (-13) | 797 | 201 | 234 | 151 | 2.52 | 4.53 | 5.27 | 1.33 | 1.54 |
| -20 (- 4) | 1045 | 263 | 306 | 172 | 2.62 | 5.95 | 6.09 | 1.54 | 1.79 |
| -15 (+ 5) | 1343 | 338 | 394 | 193 | 2.73 | 7.67 | 6.97 | 1.76 | 2.04 |
| -10 (+14) | 1703 | 429 | 499 | 215 | 2.85 | 9.76 | 7.93 | 2.00 | 2.32 |
| -5 (+23) | 2134 | 538 | 625 | 237 | 2.99 | 12.27 | 8.98 | 2.26 | 2.63 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 55°C (+131°F)) | | | | |
| Evaporating temperature | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 361 | 91 | 106 | 109 | 2.34 | 2.04 | 3.31 | 0.83 | 0.97 |
| -30 (-22) | 527 | 133 | 154 | 131 | 2.43 | 2.99 | 4.00 | 1.01 | 1.17 |
| -25 (-13) | 722 | 182 | 212 | 154 | 2.53 | 4.10 | 4.69 | 1.18 | 1.37 |
| -20 (- 4) | 959 | 242 | 281 | 178 | 2.65 | 5.45 | 5.40 | 1.36 | 1.58 |
| -15 (+ 5) | 1246 | 314 | 365 | 203 | 2.79 | 7.11 | 6.13 | 1.55 | 1.80 |
| -10 (+14) | 1595 | 402 | 467 | 230 | 2.95 | 9.14 | 6.93 | 1.75 | 2.03 |
| -5 (+23) | 2016 | 508 | 591 | 258 | 3.13 | 11.60 | 7.81 | 1.97 | 2.29 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 65°C (+149°F)) | | | | |
| Evaporating temperature | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 292 | 74 | 86 | 103 | 2.31 | 1.65 | 2.85 | 0.72 | 0.84 |
| -30 (-22) | 454 | 114 | 133 | 128 | 2.41 | 2.57 | 3.53 | 0.89 | 1.03 |
| -25 (-13) | 646 | 163 | 189 | 154 | 2.53 | 3.67 | 4.18 | 1.05 | 1.22 |
| -20 (- 4) | 880 | 222 | 258 | 182 | 2.68 | 5.01 | 4.82 | 1.22 | 1.41 |
| -15 (+ 5) | 1164 | 293 | 341 | 212 | 2.85 | 6.65 | 5.49 | 1.38 | 1.61 |
| -10 (+14) | 1511 | 381 | 443 | 244 | 3.05 | 8.66 | 6.19 | 1.56 | 1.81 |
| -5 (+23) | 1931 | 487 | 566 | 278 | 3.28 | 11.10 | 6.95 | 1.75 | 2.04 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate | Universal EG/F/AMEM version 2 | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.2 +0.12/-0.08 | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Straight | | |
| 3.2 DISCHARGE | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Straight | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |